

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars:

In the claims

Each of the independent claims 1 and 6 are amended to incorporate features previously set forth in claims 2 and 5 (as well as 7 and 8). Claims 1 and 6 are further amended to set forth features wherein according to the evaluation of at least two different properties, a certain value is assigned to each property characterizing the condition of degradation of the respective property, the values of the at least two properties are linked with each other by means of a linear combination, and the condition of degradation of the banknote is then derived from a comparison of the linear combination with a given value.

Support for these features is found in original claims 2, 5, 7 and 8, and in the original specification at paragraph [0027] on page 5.

Rejection of claims 1-9 under 35 U.S.C. § 102(a)

Claims 1-9 presently stand rejected as being anticipated by Hirasawa (U.S. 6,741,727). This rejection is respectfully traversed for at least the following reasons.

Hirasawa describes a method for detecting the soil of ban notes, wherein soil is defined as a deficiency or blemish. According to Hirasawa, soils can be damages such as folds, wrinkles, tears, and missing spaces or other soils. (see *Hirasawa*; col. 5, lines 1-25; col. 20, lines 25-28).

Beyond this discussion, however, Hirasawa addresses only the detection of damages which are folds and wrinkles. For example, Hirasawa describes that an image is created by means of illumination in the infrared range in order to emphasize edges found in the image, and that by means of a subsequent binarization, pixels having large brightness differences are extracted in order to derive a measure for the soil degree captured by the image. (see *Hirasawa*; col. 7, lines 1-18, and generally col. 7-10).

Hirasawa further describes the binarization process, noting that in particular folds having horizontal and vertical orientation are emphasized and pixels of respective horizontal and vertical orientation are extracted, and that based on these extracted pixels, a determination of the soil degree of the printed matter is conducted. (see *Hirasawa*; col. 10, lines 8-26).

The Examiner asserts that linking the data of said properties with each other by means of a linear combination is disclosed by Hirasawa, citing column 9, lines 24-29 and col. 10, lines 48-59. Applicant notes, however, that the passage of column 9, lines 24-29 relates to a determining section 13 which “determines the soil degree of the printed matter P1 on the basis of each feature quantity data item extracted by the fold/wrinkle extracting section 12” (*Hirasawa*; col. 9, lines 24-27), and notes that “[a] reference value used in this determination will be described later.” (*Hirasawa*; col. 9, lines 24-27).

Subsequently, Hirasawa states that “[a] description will now be given of the *creation of the reference value* used for the determining section 13 to determine the soil degree based on each feature quantity data item” (*Hirasawa*; col. 10, lines 27-30; emphasis added), and describes the creation of the reference value. In creating the reference value, images of printed matter are created and judged by an inspection expert as to whether they are dirty or clean. (see *Hirasawa*; col. 10, lines 32-35). Then, master data is created for each image, and the master data of various images are combined by means of a combination rule so that the soil degree of each piece of printed matter determined by the combination processing of the feature quantities will become closer to the estimation result of the expert.

The passage of Hirasawa at col. 10, lines 48-59, referenced by the Examiner, describes “one of methods for *obtaining the combination rule* by learning.” (*Hirasawa*; col. 10, lines 49-50; emphasis added). As noted above, the combination rule is used for determining the reference data, which corresponds to the given value of the presently claimed invention.

In describing the overall judgment of the soil, Hirasawa discloses that the overall soil is judged on the basis of the number and the average density of the pixels from the infrared image (wrinkles) as well as the number of pixels of the missing space. (see *Hirasawa*; col. 15, lines 5-49).

Hence, Hirasawa does not disclose or suggest that the condition of degradation of the banknote is derived from a comparison of the linear combination of values assigned to the different properties of the banknote with a given value. On the contrary, Hirasawa discloses determining the number of the pixels affected by the individual soil properties (such as wrinkles and missing spaces) and deriving a measure of the overall condition of degradation of the bank note on the basis of the reference data.

Hirasawa's approach differs from, and is not comparable with, assigning a certain value for *each considered property* according to the degradation of the banknote with respect to *that property*, and comparing a linear combination of these values with the given value in order to obtain a measure of the overall condition of degradation of the banknote.

For at least these reasons, it is respectfully submitted that Hirasawa does not disclose or suggest each and every element set forth in either claim 1 or claim 6, and therefore Hirasawa does not anticipate claim 1, claim 6, or the dependent claims 3, 4 and 9. Accordingly, it is respectfully submitted that claims 1, 3, 4, 6 and 9 are allowable over the cited reference, and withdrawal of the rejection is requested.

Conclusion

In view of the amendments to the claims, and in further view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is requested that claims 1, 3, 4, 6, and 9 be allowed and the application be passed to issue.

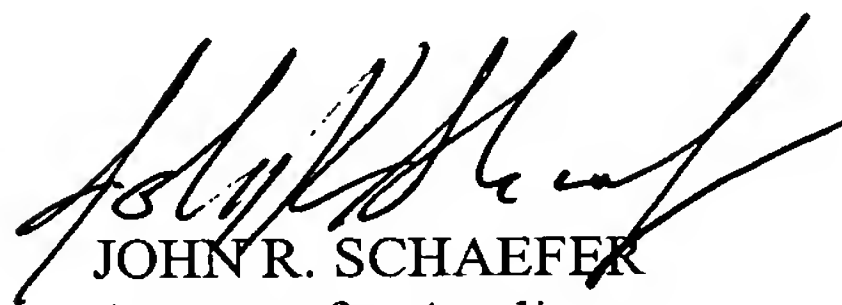
Response to Office Action of April 30, 2008
Application No.: 10/566,091
Examiner: M. J. Beauchaine
Art Unit: 3653

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicant's attorney, the Examiner is invited to contact the undersigned at the numbers shown.

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Date: July 30, 2008



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